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Published March 21st. 1826

An Essay
Modus operandi of Emetics.

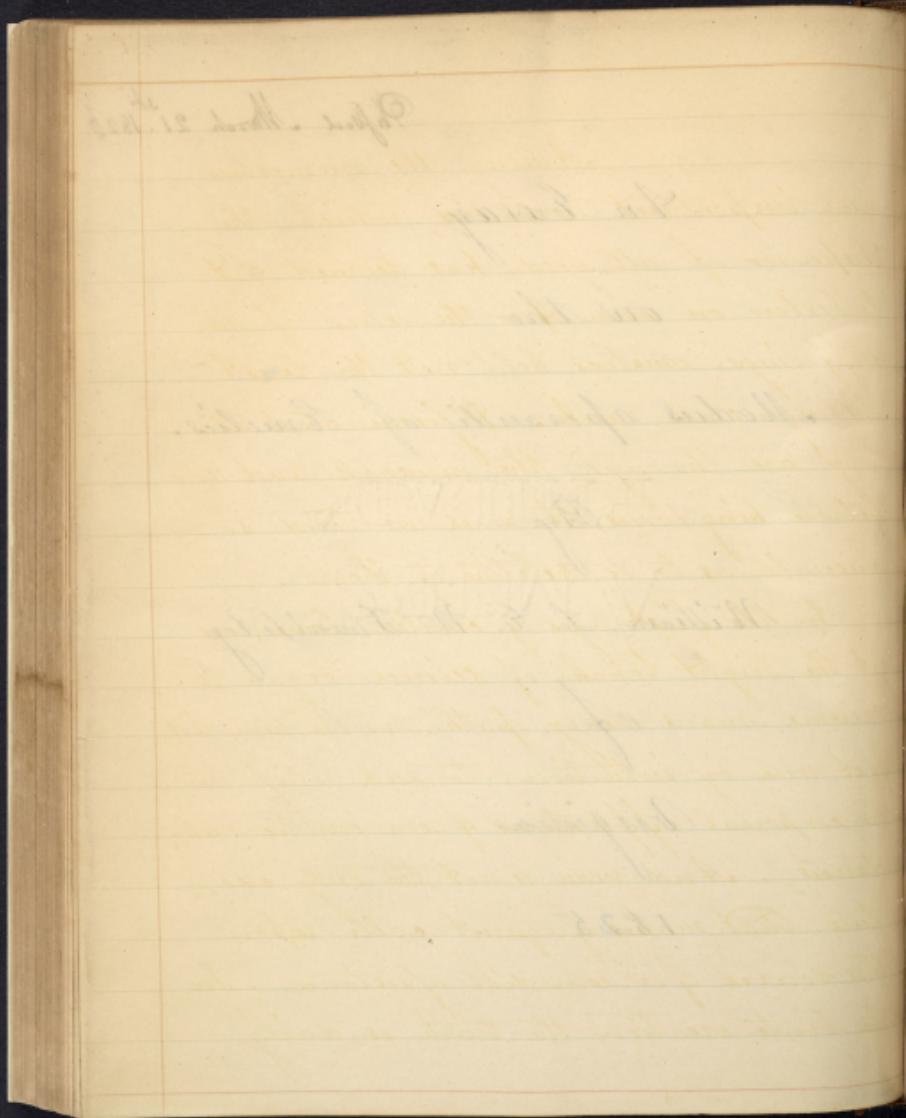
By

William. S. C. W. Fauntleroy

of

Virginia

1825



Among the numerous
and important remedies which the
dispensor of all good, has deemed fit
to bestow on man for the relief of his
sufferings, emetics hold not the least
distinguished rank. Disseminated as
they are through the mineral and ve-
getable kingdoms, there is no land so
miserable as to be destitute of them.

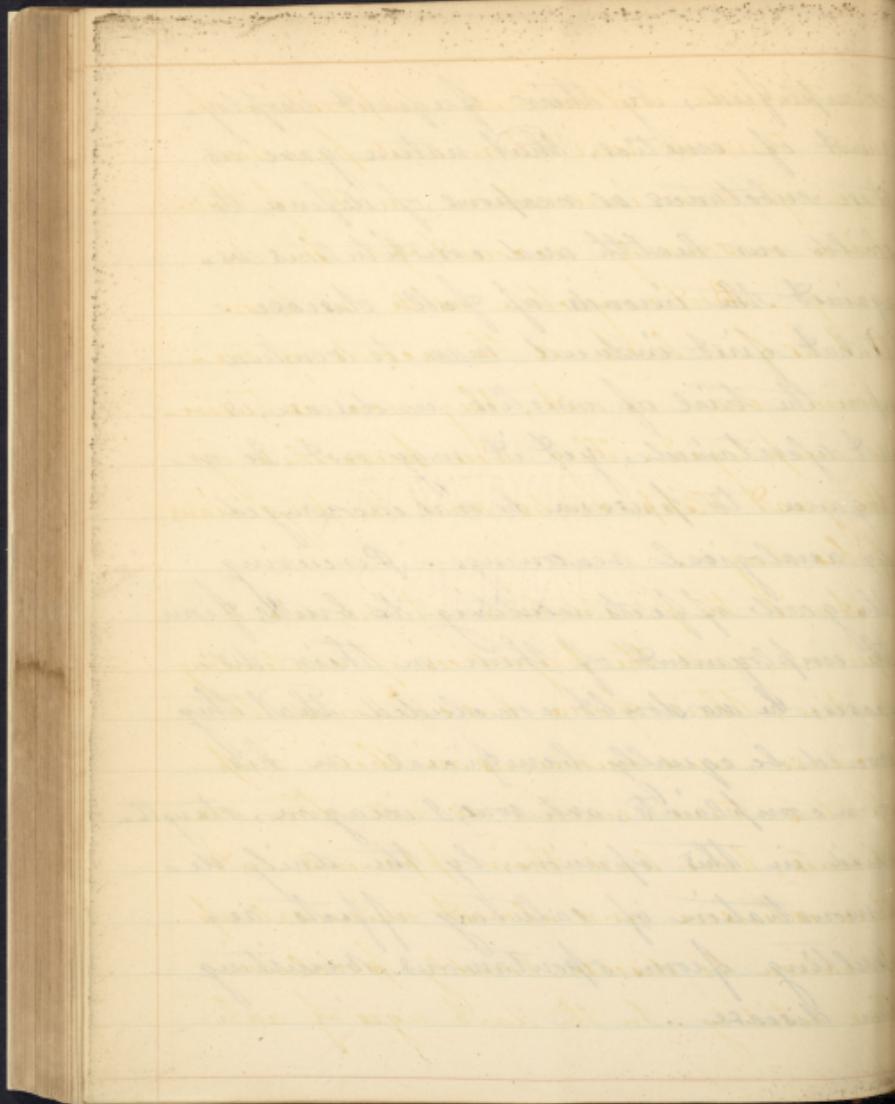
In the first ages of created time, ere
yet the bright torch of science began to
illumine man's dreary path, we see him led,
as it were by intuition, to seek relief in
his corporal afflictions from emetic sub-
stances. And man is not the only crea-
ture that makes frequent calls upon
this source of remedial assistance. In
the brute creation the truth is daily

all points
the Indian river. But they have
the sand and they do provide
water all day long no water
now all can take water except
in Sebastian. And building
a new dam at Agua Calientes
or down is with difficulty
but it will be made to do in time
and there may be some time
before we get back to the
main river. They want to make
a new bridge where the old one
is out of water now

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exemplified, by their frequent employment of emetics, that nature gave us these substances as weapons of defense to shield our health and constitutions against the inroads of fell disease.

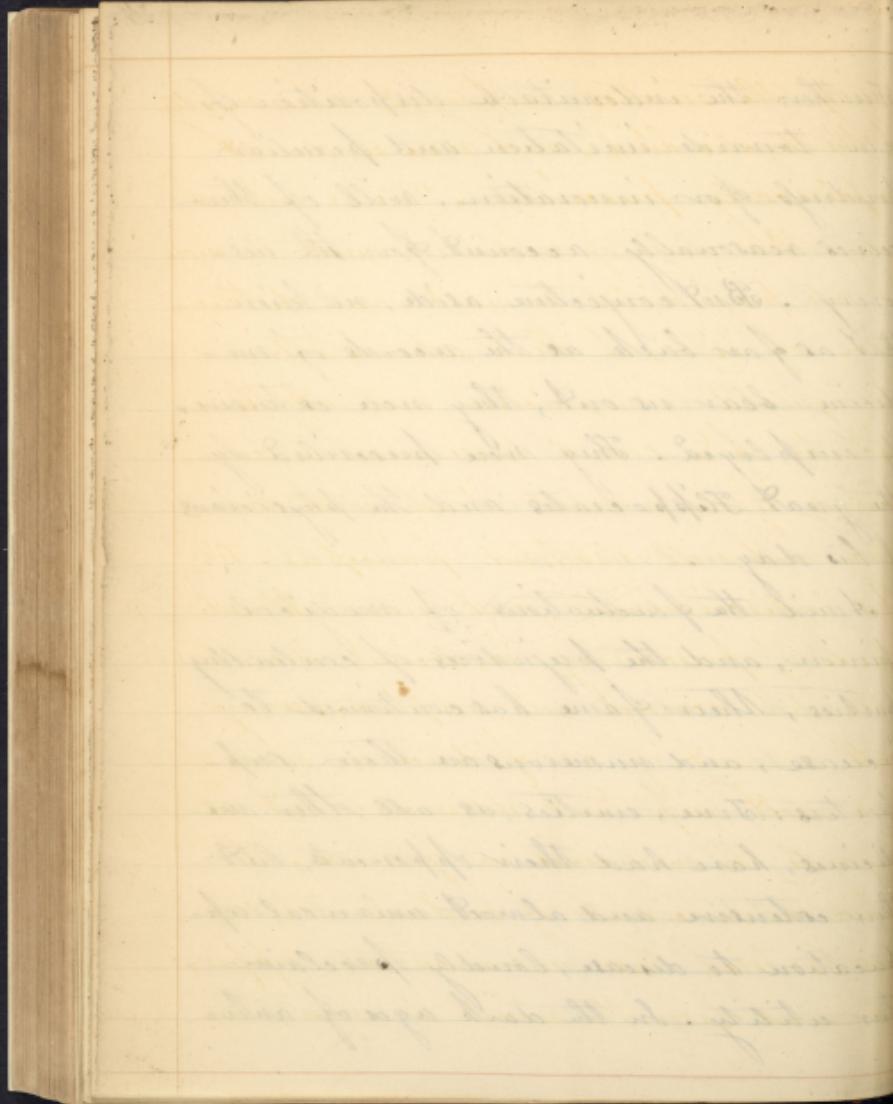
What first induced man to venture upon the trial of emetics in disease, is not ascertained, yet it may not be arrogance to presume he was encouraged by analogical reasonings. Perceiving the good effects resulting to brutes from the employment of them in their diseases, he no doubt concluded that they would be equally beneficial in his own complaints, and was, I imagine, strengthened in this opinion, by the daily demonstration of salutary effects resulting from spontaneous vomiting in disease.



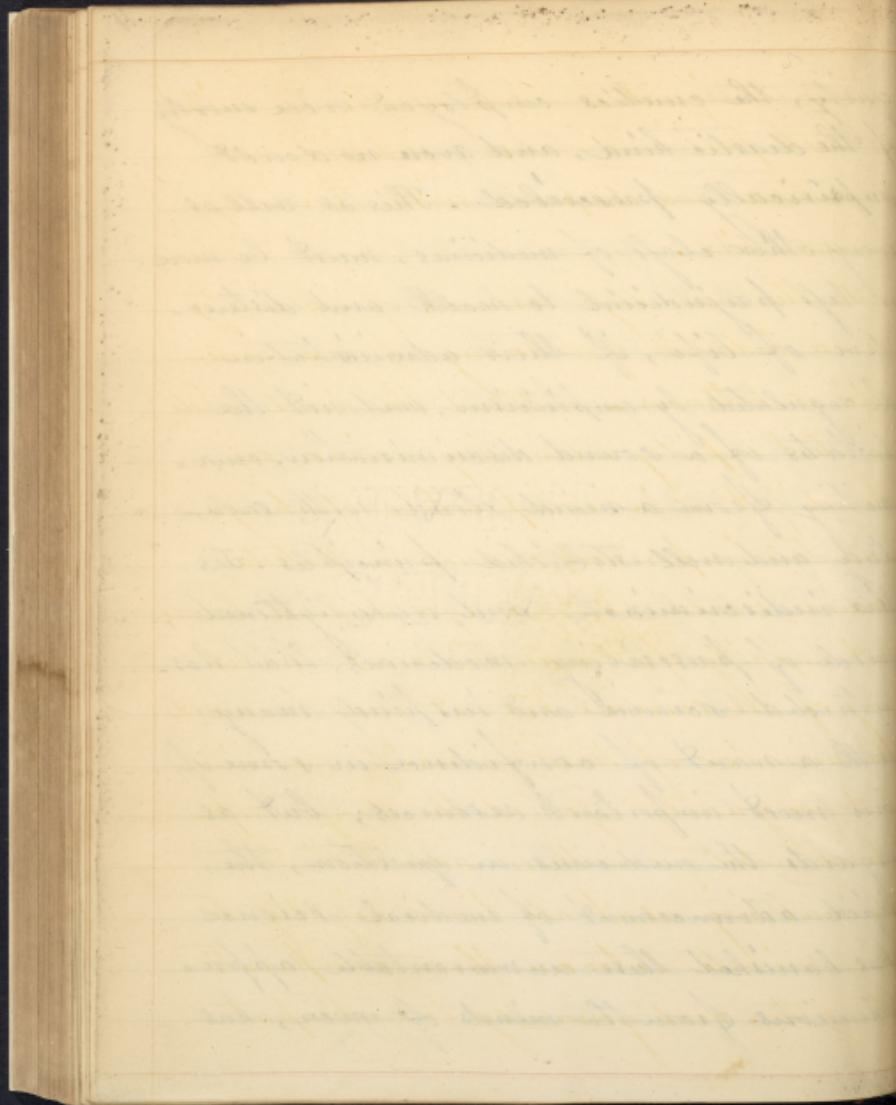
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Further the indomitable disposition of man towards imitation and peculiar fondness for innovation, will of themselves reasonably account for the discovery. But conjecture aside, we know that as far back as the records of medicine bear us out, they were extensively employed. They were prescribed by the great Hippocrates and the physicians of his day.

Amid the fluctuations of medical opinion, and the prejudices of contending parties, their fame has continued to increase, and numerous are their supporters: True, emetics, as all other medicines, have had their opponents, but their extensive and almost universal application to disease, loudly proclaim their utility. In the dark ages of anti-

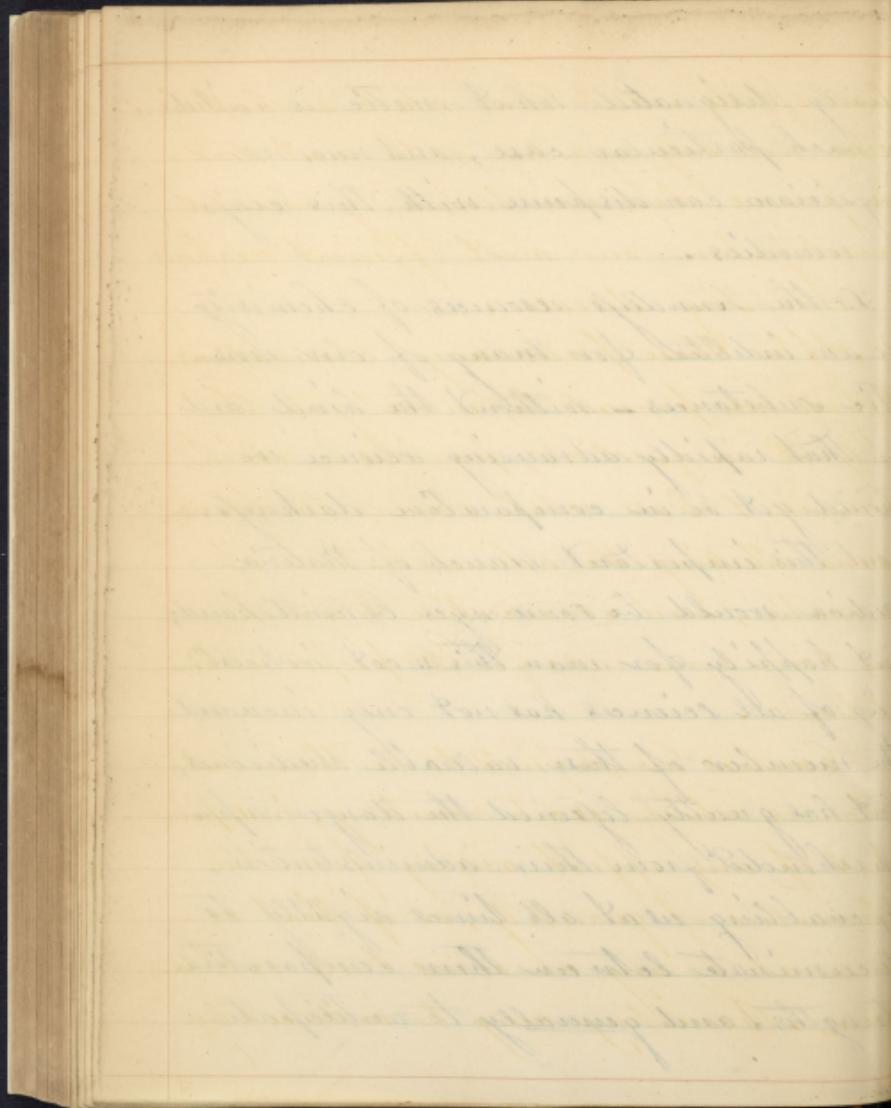


quity, the cures employed were mostly
of the deistic kind, and were no doubt
empirically prescribed. This as well as
every other class of medicines, must be more
or less prejudicial to health and distinc-
tive of life, if their administration
be regulated by empiricism, and not the
dictates of a sound discrimination, ema-
nating from a mind stored with cul-
tural and well established principles. It is
this indiscriminate and unenlightened
mode of prescribing medicines, that has
retarded science and inspired many
with a want of confidence in some of
our most important resources; but as
regards the medicines in question, the
rapid advancement of medical science
has banished these unwarrantable appre-
hensions from the minds of men, has



clearly designated what medicine is suited
to each particular case, and now, no
physician can dispense with this class
of remedies.

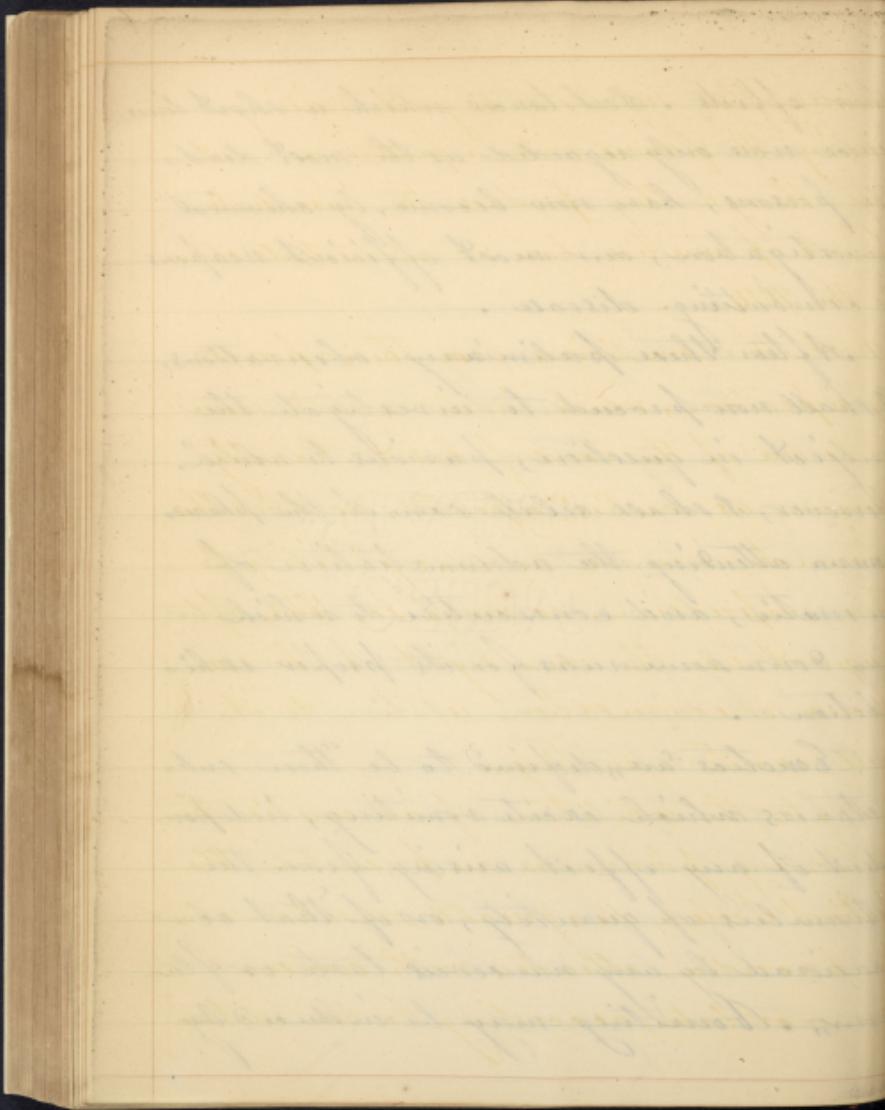
So the boundless resources of chemistry
we are indebted for many of our me-
dicinal substances - without the kind aid
of that rapidly advancing science we
should yet be in comparative darkness,
and this important branch of *Materia
Medica* would be some ages behind hand;
but happily for man this most interest-
ing of all sciences has not only increased
the number of these valuable medicines,
but has greatly lessened the danger ap-
prehended from their administration,
by enabling us at all times rightly to
discriminate between their comparative
strengths, and generally to anticipate



their effects. Substances which a short time since were only regarded as the most deadly poisons, have now become, by chemical investigation, our most efficient weapons in combating disease.

After these preliminary observations, I shall now proceed to investigate the subject in question, previous to which, however, I shall relate some of the phenomena attending the administration of an emetic, and consecutive to which lay down some rules for its proper exhibition.

Emetics are, defined to be those substances which excite vomiting, independent of any effect arising from the stimulus of quantity, or of that occasioned by any nauseous taste or flavor. Vomiting may be induced by

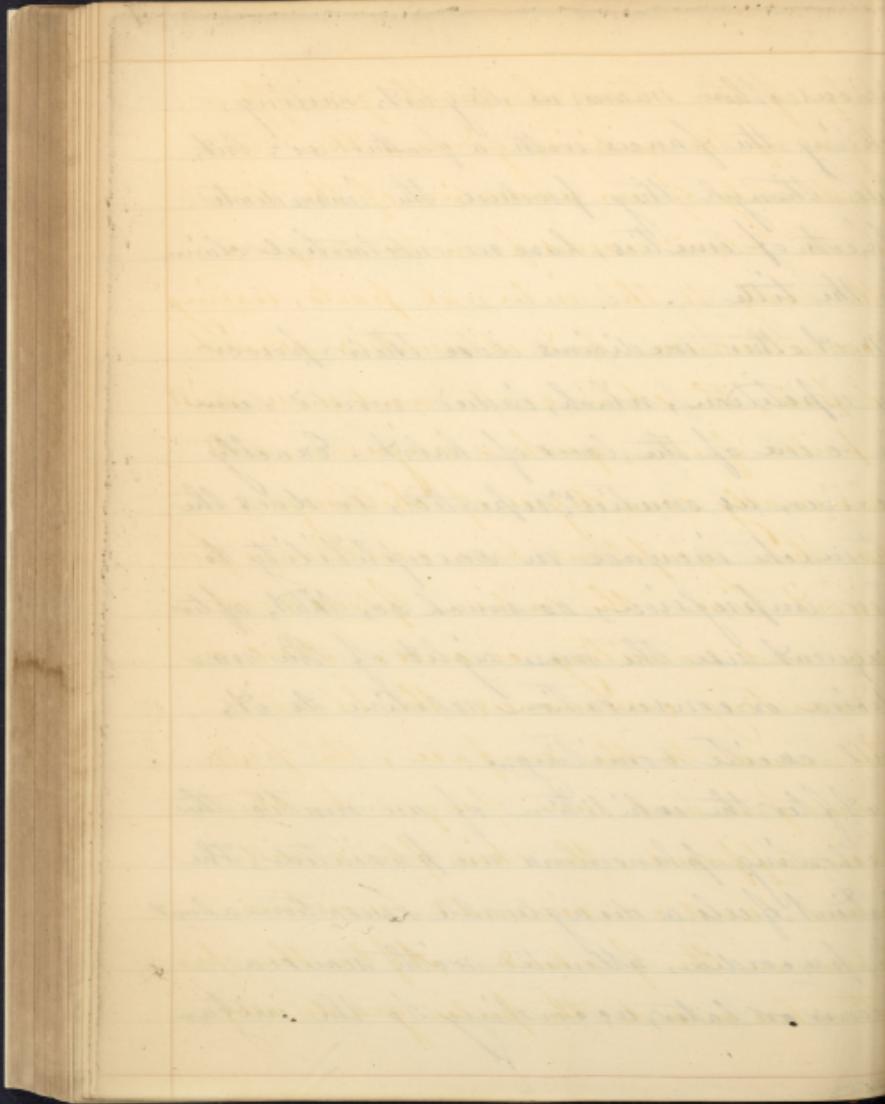


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various other means, as disgust, sailing,
tickling the fancies with a feather &c; but,
these, though they produce the immediate
effects of emetics, have no substantial claim
to the title.

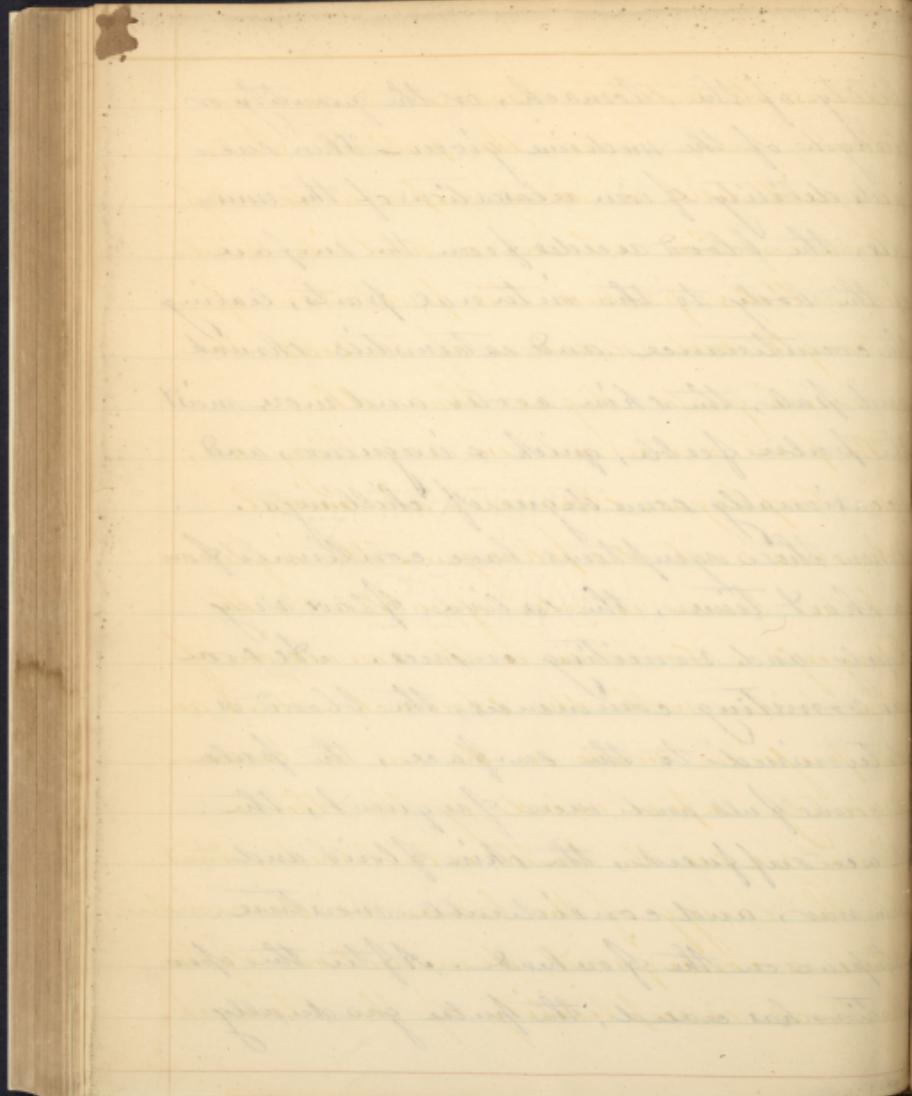
Most other medicines lose their power
by repetition, which, indeed would seem
to be one of the laws of habit. Exactly
however, as emetics repeated, so does the
stomach increase in susceptibility to
their impression, so much so, that, after
frequent use the mere sight of the me-
dicine or conversation relative to it,
will excite vomiting.

After the exhibition of an emetic the
following phenomena are presented; The
patient feels a disagreeable sensation about
the praecordia, attended with nausea
sooner or later, according to the irrita-



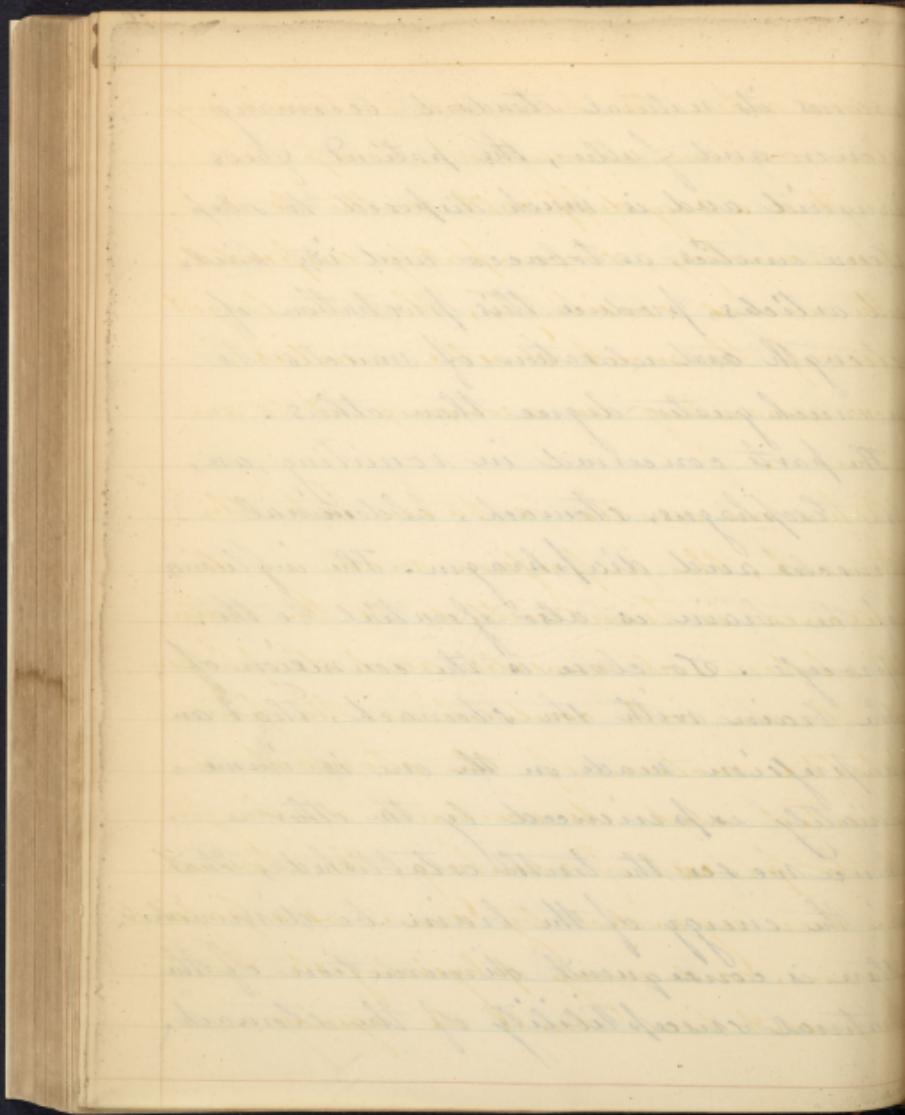
bility of the stomach, or the quantity or strength of the medicine given - Then succeeds debility from relaxation of the muscles, the blood recedes from the surface of the body to the internal parts, leaving the countenance and extremities shrunk and pale, the skin cooler and more moist the pulse feeble, quick & irregular, and occasionally some degree of chilliness.

When these symptoms have continued for a short time, the saliva flows very freely and vomiting ensues. As soon as vomiting commences, the blood is determined to the surface, the pulse becomes full and more frequent, the face suffused, the skin florid and warmer, and considerable moisture appears on the forehead. After the operation has ended, the pulse gradually



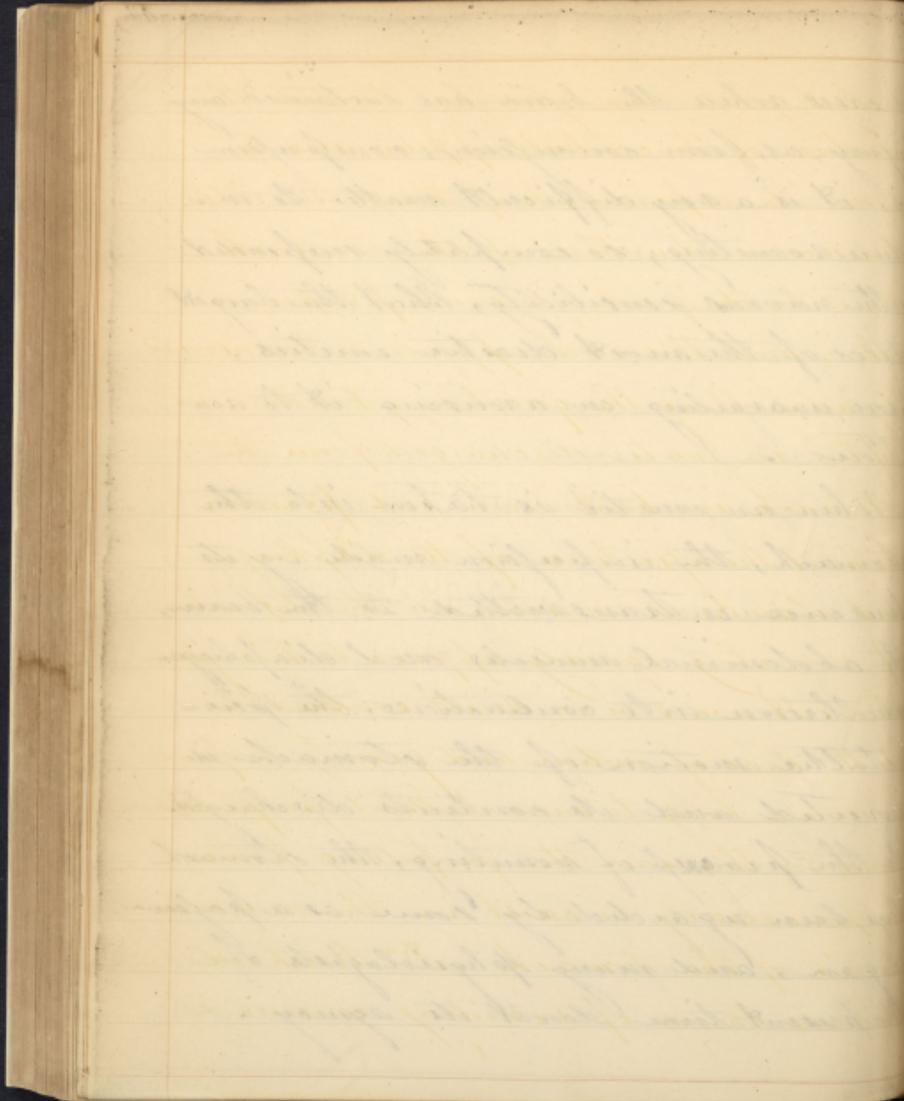
resumes its natural standard becoming
slower and fuller, the patient feels
languid and is much disposed to sleep.
Some emetics, as tobacco and its kind-
red articles, produce this prostration of
strength and relaxation of muscles to
a much greater degree than others.

The parts concerned in vomiting, are,
the Esophagus, stomach, abdominal
muscles and diaphragm. The influence
of the brain is also essential to the
process. So close is the connexion of
the brain with the stomach, that an
impression made on the one is imme-
diately experienced by the other -
hence we see the truth established, that
if the energy of the brain be diminished,
there is consequent diminution of the
natural susceptibility of the stomach.

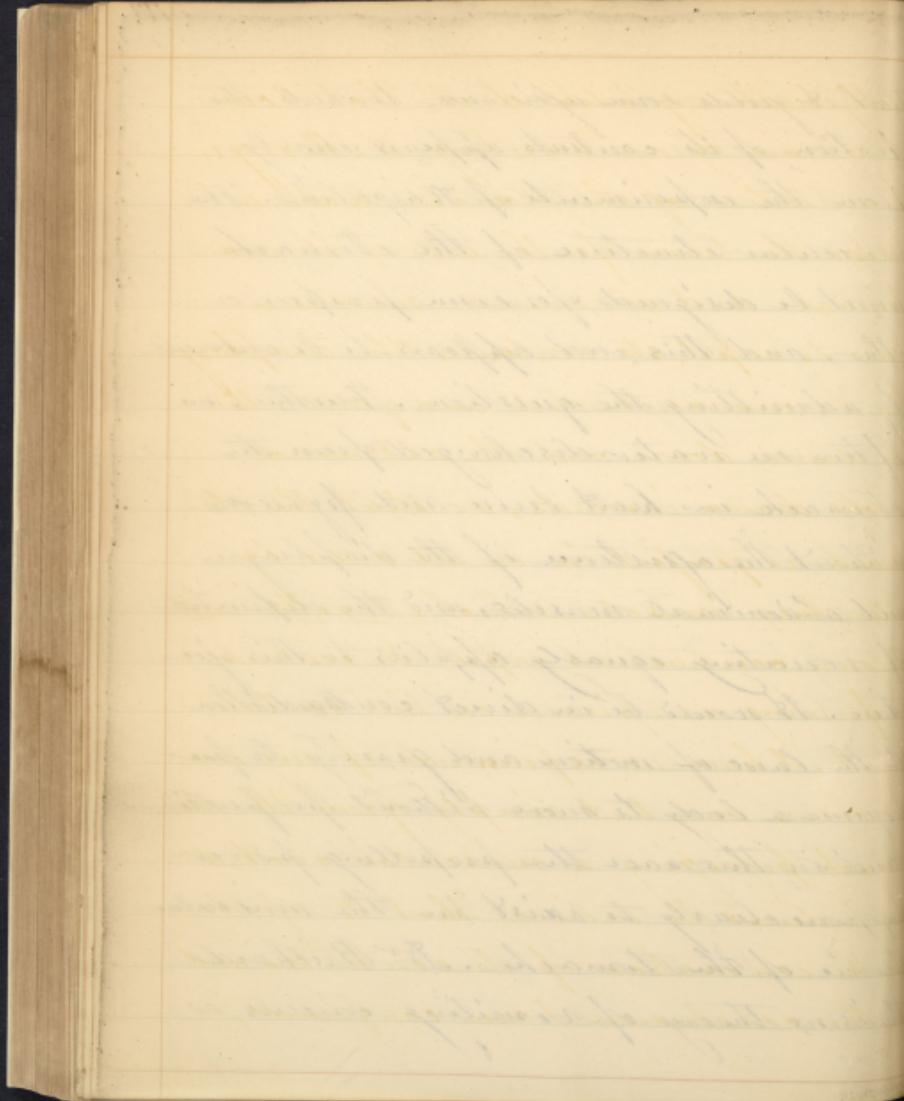


In cases where the brain has sustained any injury, as, from concussion, compression &c, it is a very difficult matter to induce vomiting; so completely suspended is the nervous sensibility, that the largest doses of the most drastic emetics, prove unavailing in arousing it to action.

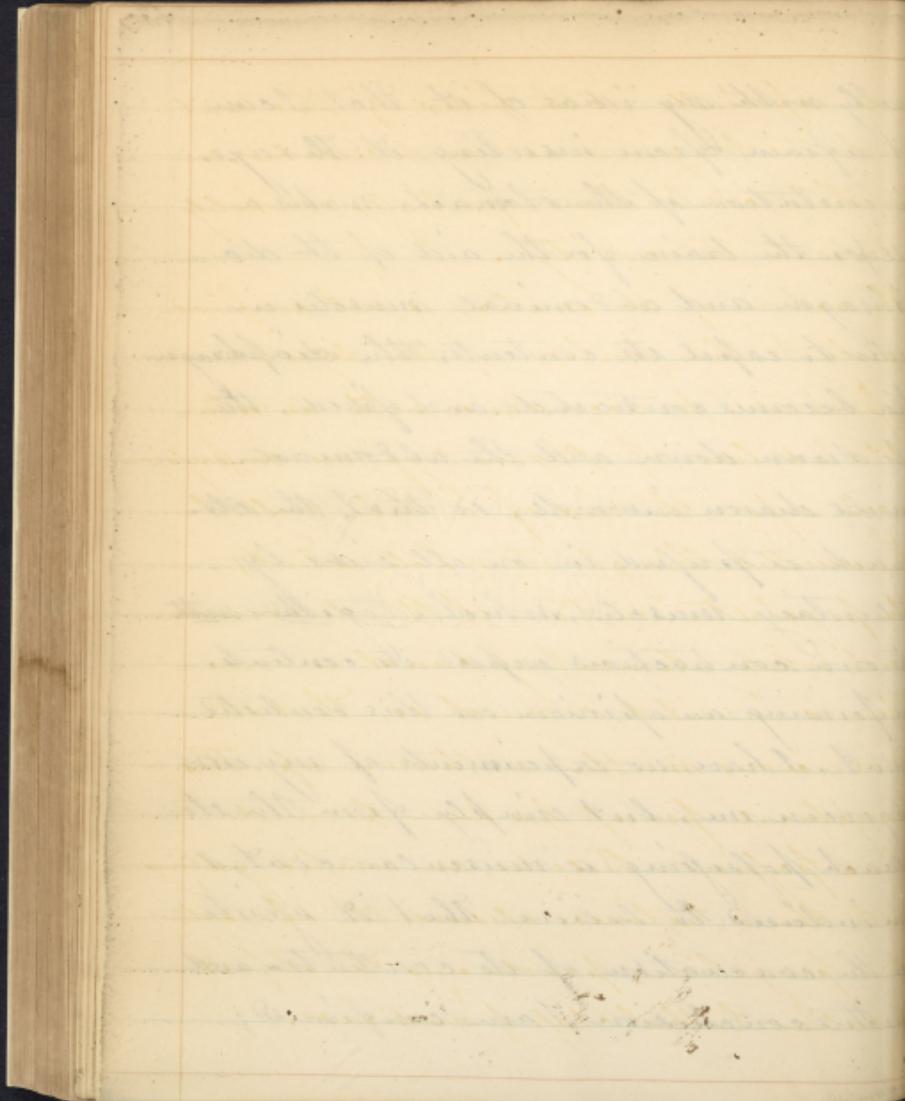
When an emetic is taken into the stomach, the impression made by its presence is transmitted to the brain, the abdominal muscles and diaphragm are thrown into contractions, the peristaltic motion of the stomach is inverted and its contents discharged. In the process of vomiting, the stomach has been regarded by some as a passive organ, and many physiologists of the present time doubt its agency.



That it yields some assistance towards the ejection of its contents appears clearly from the experiments of Haughton. The muscular structure of the stomach must be designed for some purpose or other, and this must appear to be answered by admitting the question. Further, we often see water discharged from the stomach in heart burn and pyrosis, without the assistance of the diaphragm and abdominal muscles, and the definition of vomiting equally applies to this operation. It would be in direct contradiction to the laws of motion and gravity to presume a body to move without propulsion and in this case the propelling power appears clearly to exist in the muscular tissue of the stomach. Dr Richard Haines theory of vomiting concurs so

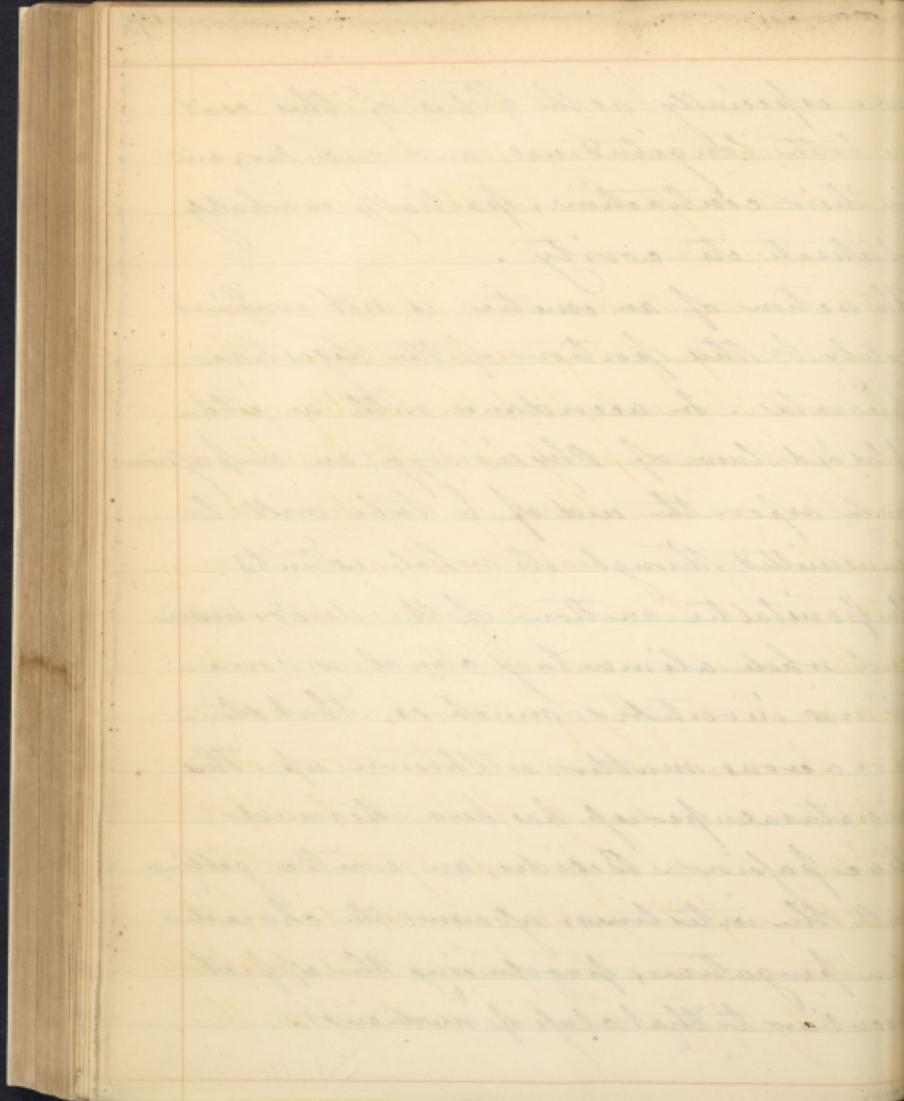


exactly with my ideas of it, that I can not refrain from inserting it: He says, the irritation of the stomach makes a call upon the brain for the aid of the dia-phragm and abdominal muscles in order to expel its contents; the dia-phragm then becomes contracted and fixed, the ribs drawn down and the abdominal muscles drawn inwards, so that the stomach is pressed in on all sides by voluntary muscles, which, together with its own contractions expell its contents. In forming an opinion on this contested point, I have no experiments of my own to govern me, but simply from the stomach possessing a muscular coat, I am induced to believe that it assists in the evacuation of its contents - and in this conclusion I am confirmed,



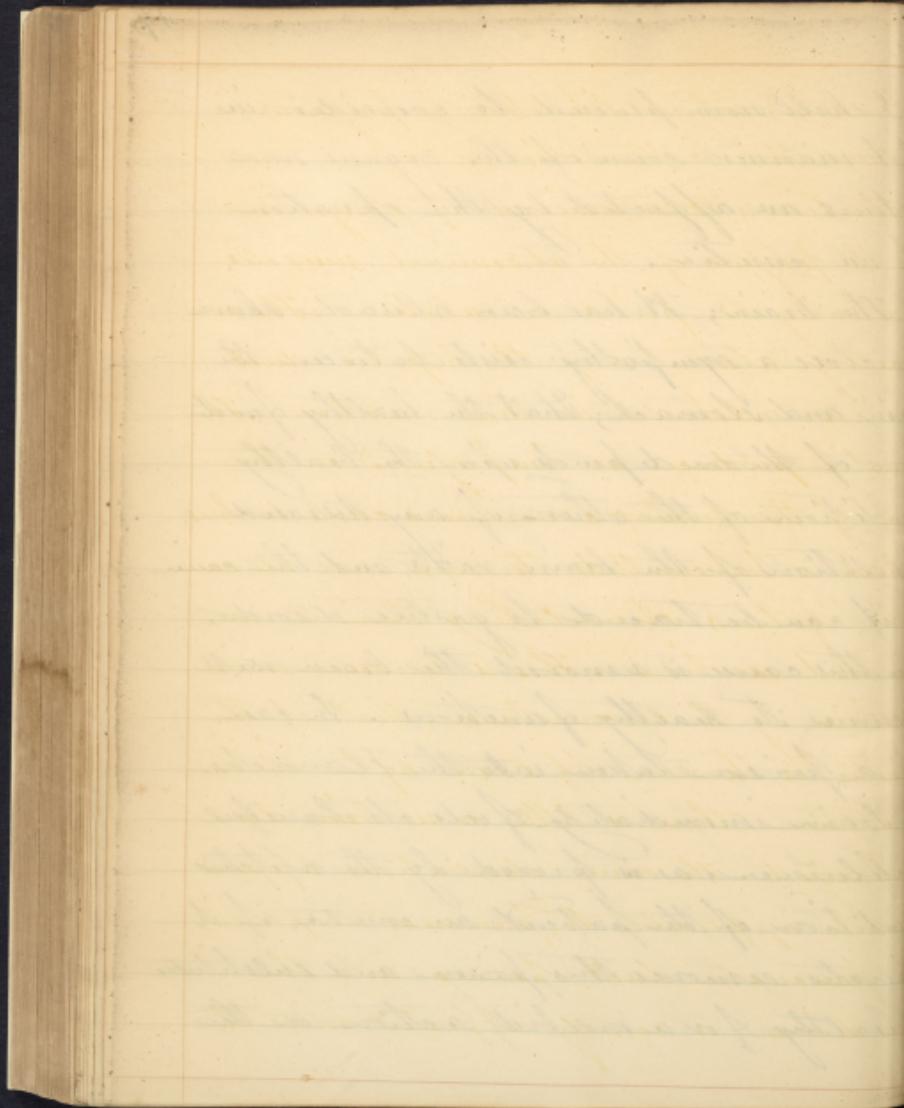
more especially as the fibres of this coat
are both longitudinal and circular, and
by their contractions, partially or wholly
obliterate its cavity.

The action of an emetic is not confined
solely to this portion of the digestive
apparatus. In accordance with an es-
tablished law of Physiology (an impression
made upon the end of a tube will be
transmitted through its whole extent),
the peristaltic motion of the duodenum
and whole alimentary canal is some-
times inverted, so much so, that ster-
eoaceous matter is thrown up. This
unnatural process has been termed
ileac paroxysm. Besides, an emetic getting
into the intestines, assumes the character
of a purgative, producing the effect
peculiar to that class of medicines.



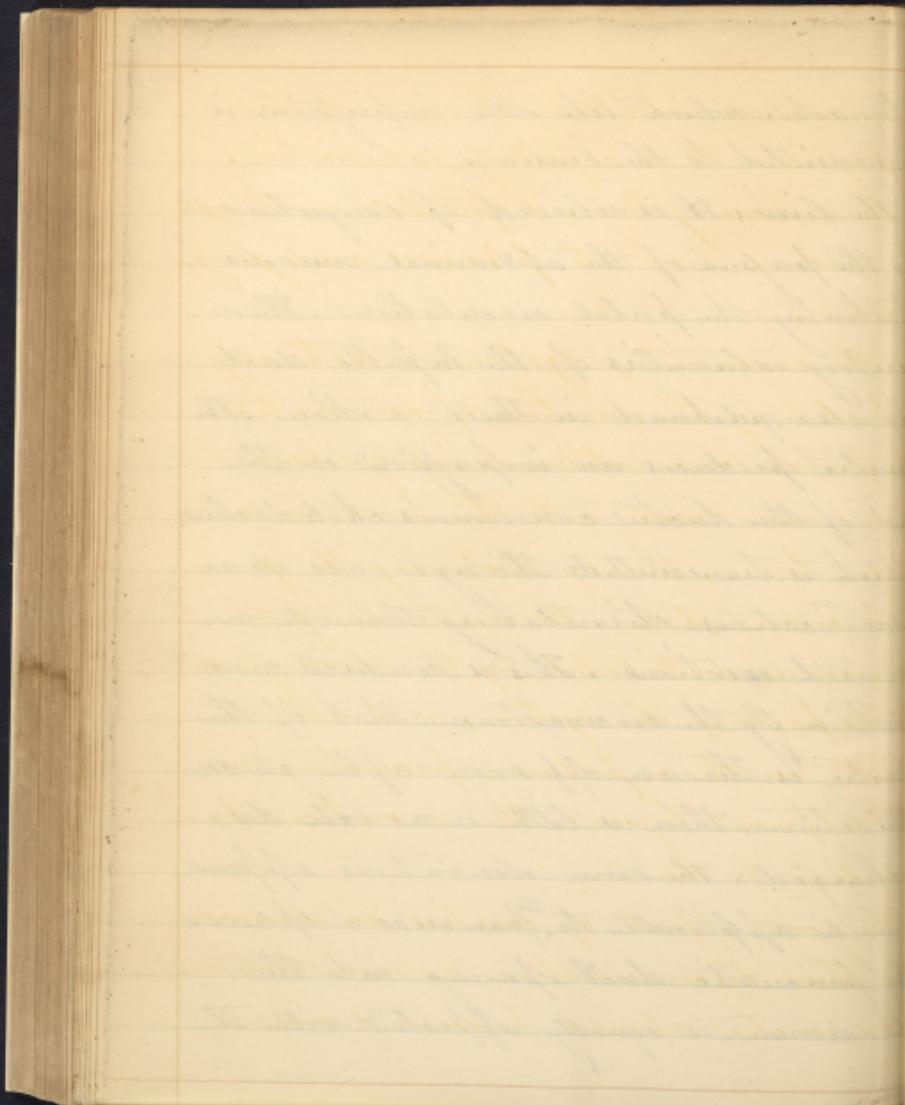
I shall now proceed to consider in what manner some of the organs and systems are affected by the operation of an emetic.

1: The brain; It has been already shown how close a sympathy exists between the brain and Stomach; that the healthy functions of the one depends upon the healthy condition of the other - if any diseased condition of the brain exists, and the cause of it can be traced to gastric disorder, when this cause is removed the brain will resume its healthy functions. In case of a poison taken into the stomach, the brain immediately feels its baneful influence, as is proved by the wretched condition of the patient; an emetic, if it operates removes this poison and substitutes a healthy for a morbid action in the



stomach, which like other impressions is transmitted to the brain.

3: The Liver; It is relieved of congestion by the pressure of the abdominal muscles hastening the portal circulation. These voluntary contractions of the hepatic duct are also quickened in their action. The emetic produces an impression on the end of the ductus communis choledochus, which is transmitted through all its ramifications, stimulating them to increased exertions. This is rendered more certain by the circumstance, that if the emetic is thrown off soon after its exhibition, there is little or no bile discharged. The same observations appear equally applicable to ^{the} pancreas & spleen. The pancreatic duct opening into the duodenum, is equally affected with the

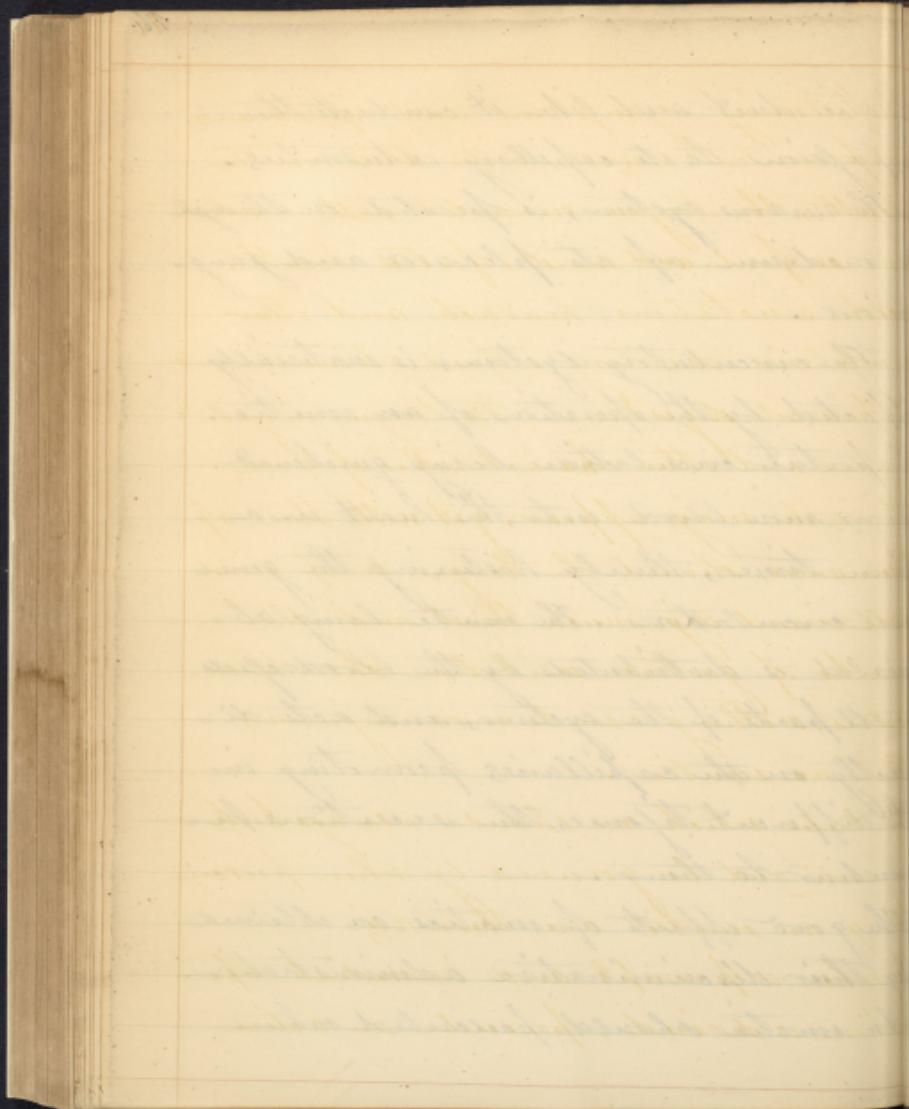


hepatic duct and like it conducts the impulsion to its capillary extremities.

3: The nervous system, is operated on through the medium of its pleuses and ganglia.

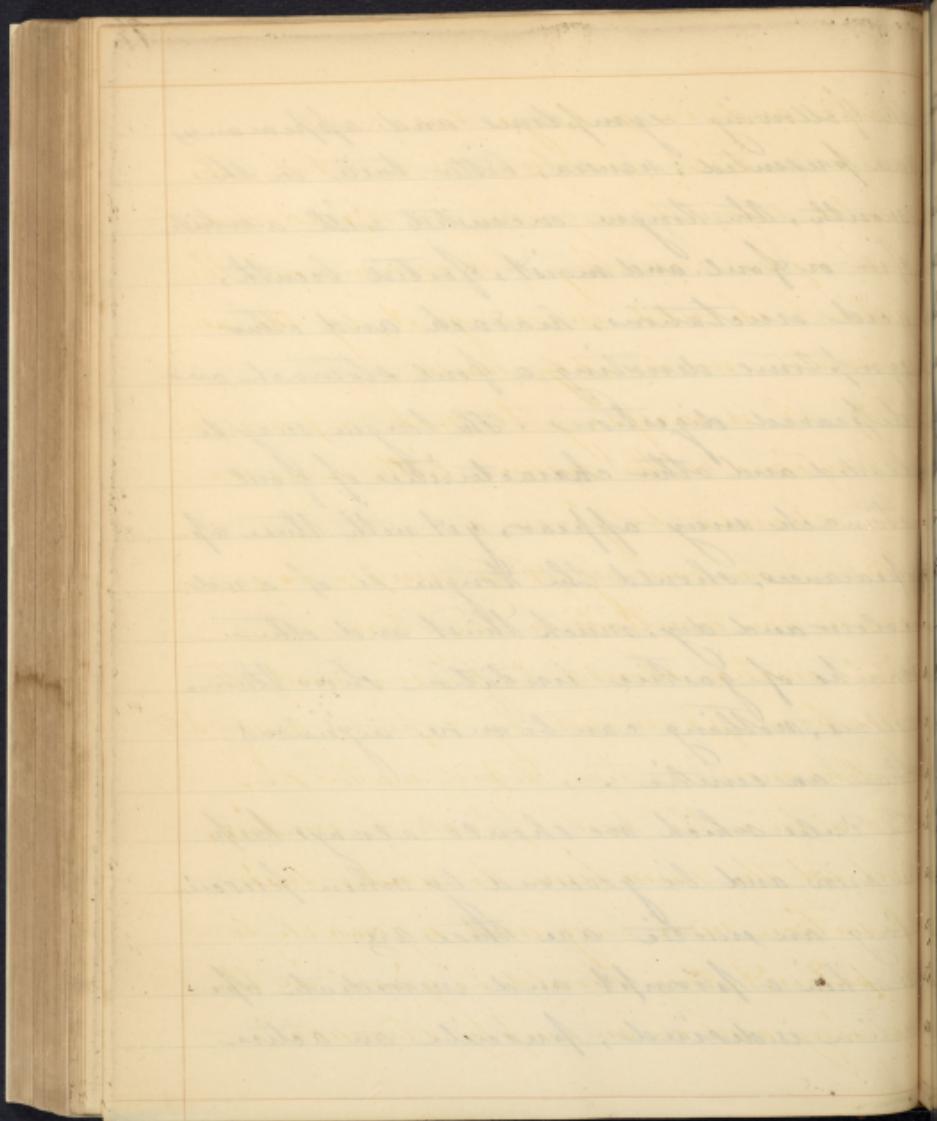
4: The circulatory system, is materially affected by the operation of an emetic. The portal circulation being quickened throws more blood into the heart in a given time, thereby hastening the general circulation. The emetic being absorbed is distributed by the blood vessels to all parts of the system, and acts directly on the capillaries promoting in the different tissues, the secretions peculiar to them.

The good effects of emetics are obtained by their discriminative administration. An emetic should prescribed when



the following symptoms and appearance
are presented; nausea, bitter taste in the
mouth, the tongue encrusted with a white
fou or foul and moist, foetid breath,
acid eructations, headache and other
symptoms denoting a foul stomach and
depraved digestion. The tongue may be
loaded and other characteristics of foul
stomach may appear, yet with these ap-
pearances, should the tongue be of a red
colour and dry, much thirst and other
marks of gastric irritation show them-
selves, nothing can be more injurious
than an emetic.

The rules which we should always keep
in view and be governed by when prescri-
bing an emetic are three viz:
1: when a prompt and immediate op-
eration is desired, prescribe an active



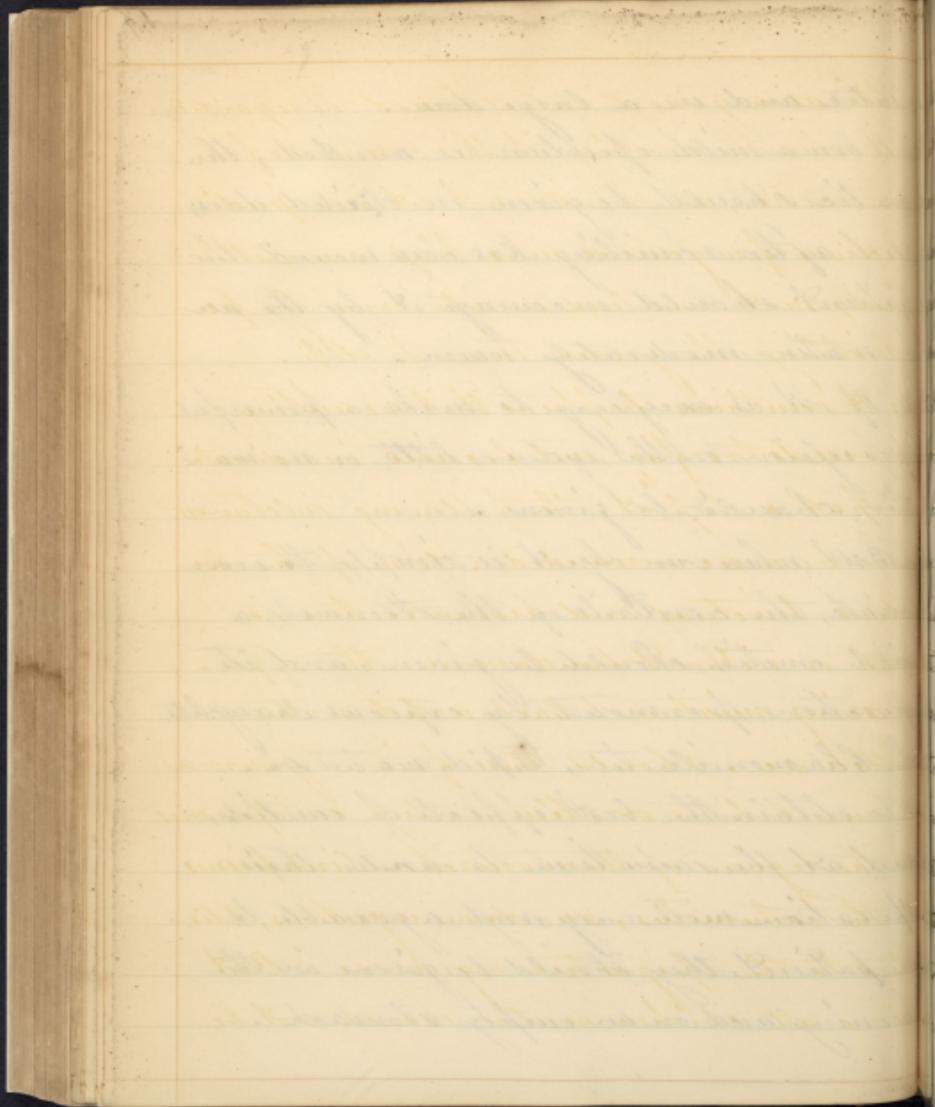
emetic and in a large dose.

3: When a mild operation is wanted, the emetic should be given in divided doses; and after vomiting has commenced the patient should encourage it by the use of water moderately warm.

3: If it is necessary to make a powerful impression on the system, little or no water should be given.

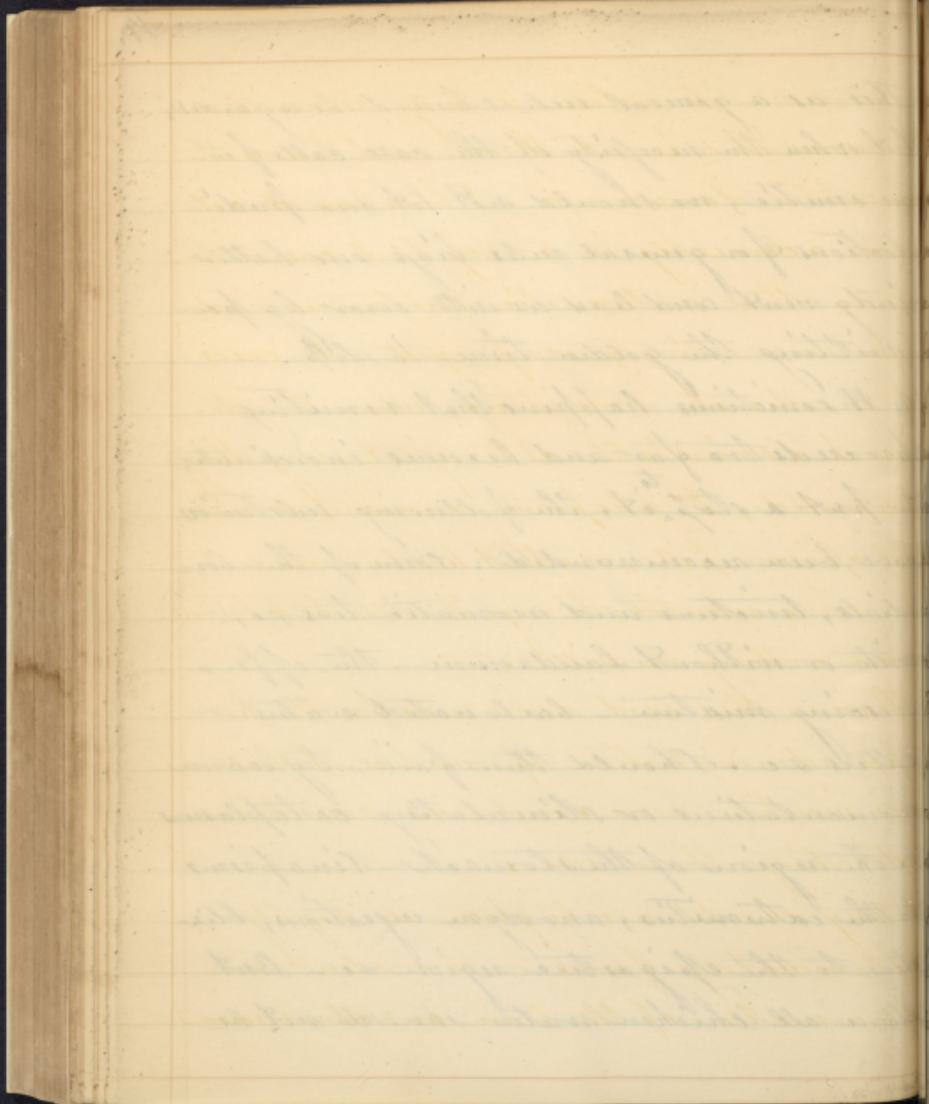
4: But when our object is simply to evacuate the contents of the stomach, a mild emetic should be given, and its operation promoted by copious draughts of Chamomile tea, tepid water &c.

5: To obtain the best effects of emetics, and at the same time to render their operation more easy and agreeable to the patient, they should be given in the morning and on an empty stomach.



This as a general rule should be regarded, but when the necessity of the case calls for an emetic, we should not let our predilections for general rules bias our better judgment and lead us into error by permitting the golden time to slip.

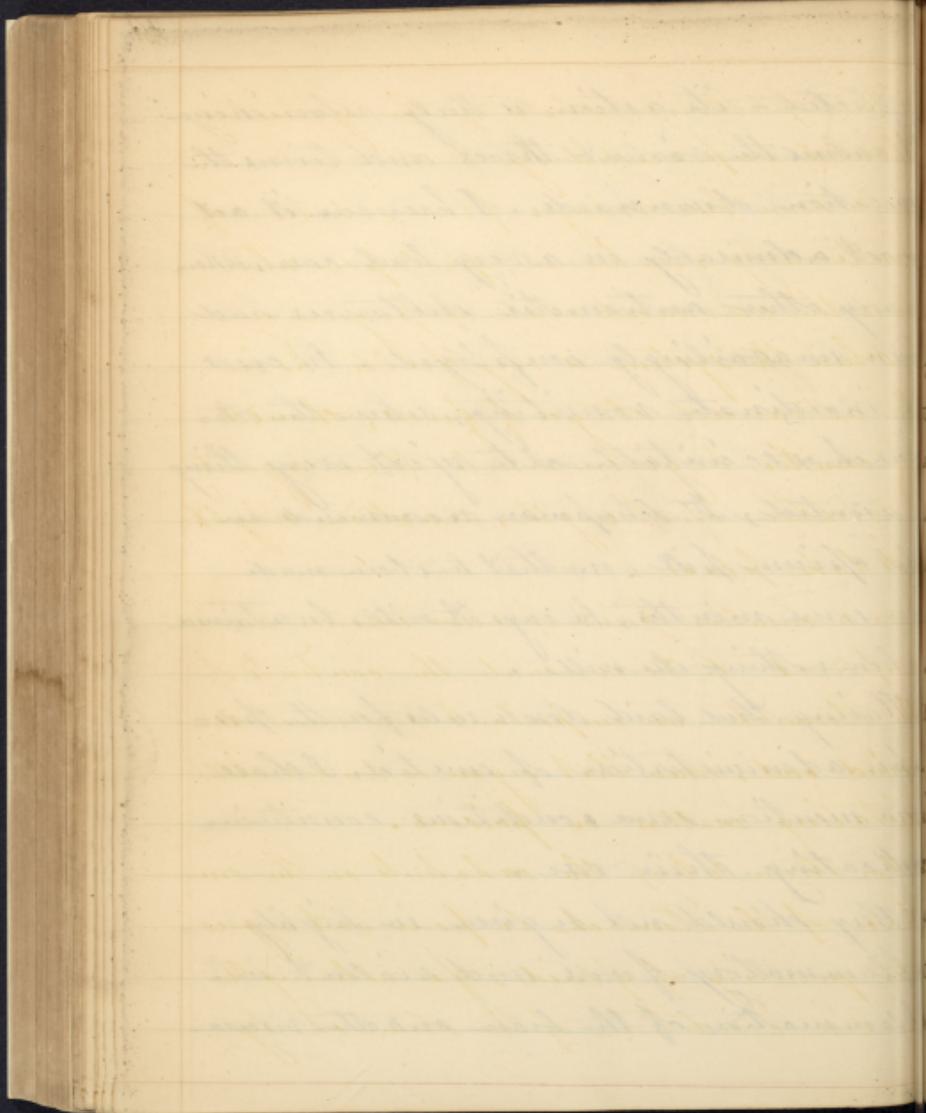
6: It sometimes happens that vomiting proceeds too far and becomes inordinate; to put a stop ^{to} it, the following substances have been recommended: Some of the balsams, tinctures and aromatic teas &c, with or without Laudanum - the effervescent mixture - carbonated water - bitters &c. Should these fail, try warm fomentations or stimulating cataplasms to the regions of the stomach - Sinapisms to the extremities, anodyne injections, blisters to the epigastric region &c - But above all chicken water should not be



neglected - its action is truly astonishing - it calms the violent throes and turns the operation downwards. I have seen it act most admirably in a very bad case, when many other antiemetic substances had been unavailingly employed. In cases of inordinate vomiting, when the stomach is so irritabla as to reject every thing presented, Dr Chapman recommends an old opium pill, one that has been made for some months; he says it will be retained when nothing else will.

Having thus laid down rules for the proper administration of emetics, I shall now mention some conditions contraindicating their use.

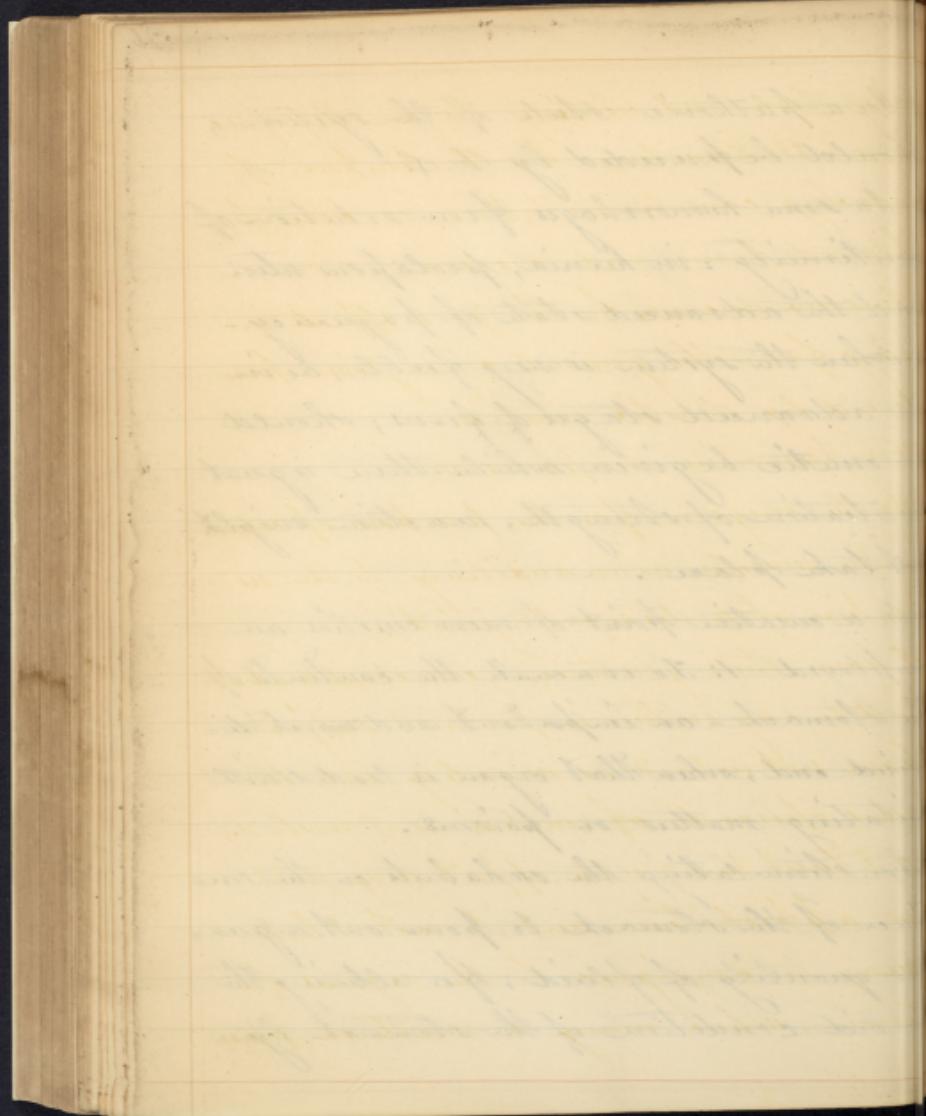
1. They should not be given in highly inflammatory fevers and violent inflammation of the brain and other viscera.



- 1: In a plethoric state of the system; should be preceded by V.S.
- 3: In some hemorrhages from solution of continuity: in hernia, prolapsus uteri and the advanced state of pregnancy.
- 4: When the system is very feeble, as in the advanced stages of fevers; should an emetic be given while there is great prostration of strength, reaction might not take place.

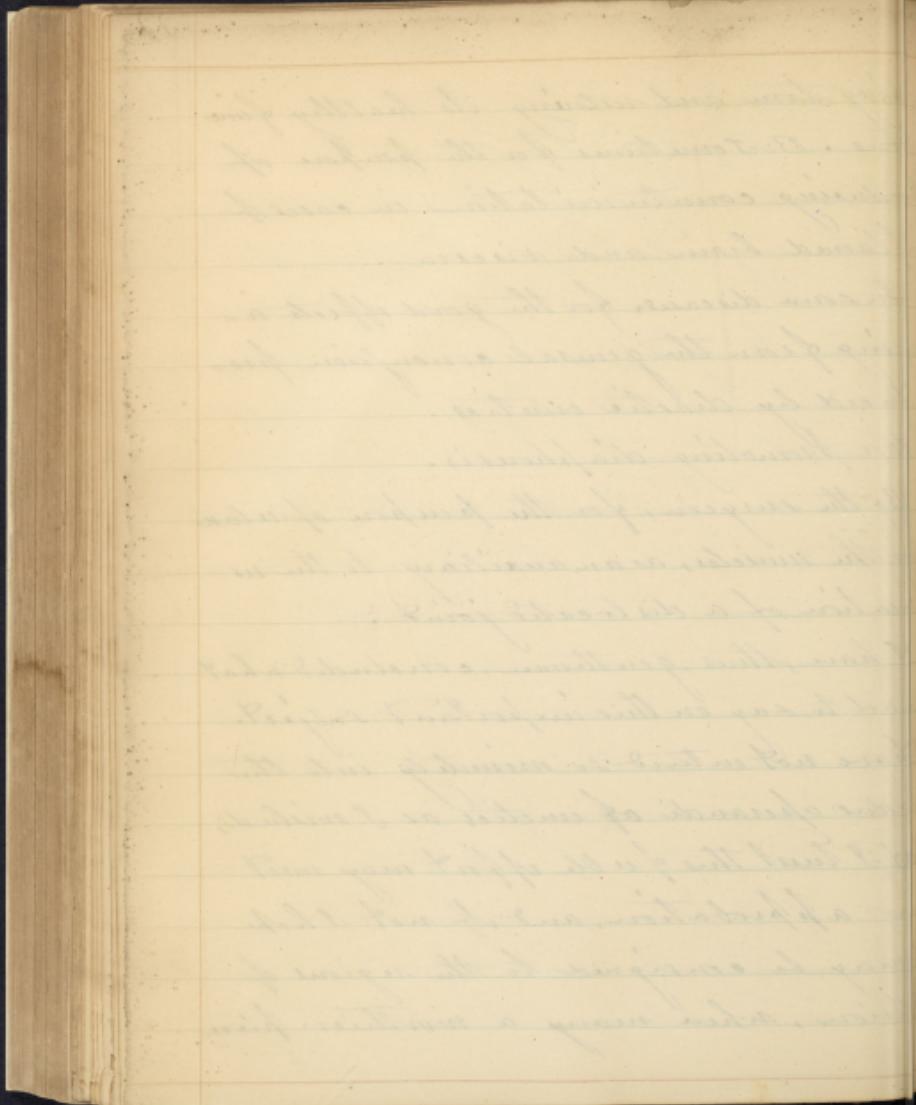
In a curative point of view emetics are employed 1: To evacuate the contents of the stomach - an important and much desired end, when that organ is loaded with irritating matters or poisons.

2: For stimulating the exhalents on the surface of the stomach to pour out a greater quantity of fluid; for altering the morbid condition of the stomach by



- giving tone and restoring its healthy functions.
- 3: Sometimes for the purpose of producing counter irritation in cases of inflamed brain and viscera.
 - 4: In some diseases, for the good effects arising from the general concussion produced by drastic emetics.
 - 5: For promoting diaphoresis.
 - 6: By the surgeon, for the purpose of relaxing the muscles, as an auxiliary to the restoration of a dislocated joint.

I have, thus, gentleman, concluded what I had to say on this important subject. I have not entered so minutely into the modus operandi of emetics as I wished; but I trust this feeble effort may meet your approbation, and if not I hope it may be consigned to the regions of oblivion, where many a worthier piece



has been doomed.

Dick Core